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2013

### Nebraska Summary: S954 New Holland T5.115

Nebraska Tractor Test Laboratory

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# SUMMARY OF OECD TEST 2803A–NEBRASKA SUMMARY 954

## NEW HOLLAND T5.115 DIESEL

### 24 SPEED

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
<b>Rated Engine Speed—(PTO speed—1194 rpm)</b>					
103.0 (76.8)	2300	6.41 (24.25)	0.434 (0.264)	16.08 (3.17)	
<b>Standard Power Take-off Speed (1000 rpm)</b>					
104.7 (78.1)	1926	6.07 (22.99)	0.404 (0.246)	17.26 (3.40)	
<b>Maximum Power - (1 hour)</b>					
104.7 (78.1)	1926	6.07 (22.99)	0.404 (0.246)	17.26 (3.40)	

#### VARYING POWER AND FUEL CONSUMPTION

103.0 (76.8)	2300	6.41 (24.25)	0.434 (0.264)	16.08 (3.17)	Air temperature
88.4 (65.9)	2325	5.54 (20.99)	0.437 (0.266)	15.94 (3.14)	69°F (20°C)
66.9 (49.9)	2346	4.50 (17.03)	0.469 (0.285)	14.87 (2.93)	Relative humidity
45.2 (33.7)	2375	3.38 (12.80)	0.521 (0.317)	13.36 (2.63)	29%
22.9 (17.1)	2398	2.26 (8.55)	0.686 (0.418)	10.15 (2.00)	Barometer
--	2411	1.73 (6.54)	--	--	28.8" Hg (97.4 kPa)
--			--	--	

Maximum Torque - 316.7 lb.-ft. (429.4 Nm) at 1500 rpm

Maximum Torque Rise - 34.7%

Torque rise at 1800 engine rpm - 28%

Power increase at 1926 rpm - 1.7%

#### DRAWBAR PERFORMANCE (Unballasted - Front Drive Engaged) FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
<b>Maximum Power—12th (2MH) Gear</b>									
73.0 (54.4)	6000 (26.7)	4.56 (7.34)	2300	3.0	0.619 (0.377)	11.25 (2.22)	181 (83)	77 (25)	29.9 (101.1)
<b>75% of Pull at Maximum Power—12th (2MH) Gear</b>									
56.5 (42.1)	4495 (20.0)	4.71 (7.58)	2332	1.3	0.702 (0.427)	9.91 (1.95)	180 (82)	77 (25)	30.0 (101.7)
<b>50% of Pull at Maximum Power—12th (2MH) Gear</b>									
38.8 (28.9)	3020 (13.4)	4.82 (7.76)	2356	0.8	0.814 (0.495)	8.56 (1.69)	178 (81)	77 (25)	30.0 (101.7)
<b>75% of Pull at Reduced Engine Speed—13th (3ML) Gear</b>									
56.3 (42.0)	4495 (20.0)	4.70 (7.56)	1792	1.4	0.627 (0.381)	11.12 (2.19)	178 (81)	77 (25)	30.0 (101.7)
<b>50% of Pull at Reduced Engine Speed—13th (3ML) Gear</b>									
38.8 (28.9)	3035 (13.5)	4.79 (7.71)	1802	0.9	0.705 (0.429)	9.89 (1.95)	176 (80)	79 (26)	30.0 (101.7)

**Location of tests:** Istituto per le Macchine Agricole  
e Movimento Terra 73, Strada delle Cacce 10135  
Torino Italy

**Dates of tests:** March to July, 2013.

**Manufacturer:** CNH Europe Holding S.A. 24,  
Boulevard Royal L-2449 Luxembourg

**FUEL and OIL:** Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.837  
**Fuel weight** 6.97 lbs/gal (0.835 kg/l) **Oil SAE** 15W40 **API service classification** CJ-4  
**Transmission and hydraulic lubricant** NH 410B  
**fluid Front axle lubricant** NH 410B fluid

**ENGINE:** Make FPT Industrial Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler **Serial No.** 000124827 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 3.898" x 4.331" (99.0 mm x 110.0 mm) **Compression ratio** 17.0 to 1 **Displacement** 207 cu in (3387 ml) **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements and aspirator **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** one paper element **Exhaust** regenerative particulate filter integrated within an underhood muffler with vertical outlet **Cooling medium temperature control** thermostat and variable speed fan

**CHASSIS:** **Type** front wheel assist **Serial No.** ZCJR25579 **Tread width** rear 56.5" (1434 mm) to 84.2" (2138 mm) front 56.7" (1441 mm) to 84.8" (2153 mm) **Wheelbase** 92.5" (2350 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (2) range operator controlled powershift **Nominal travel speeds mph (km/h)** first 1.20 (1.93) second 1.37 (2.20) third 1.79 (2.88) fourth 2.04 (3.28) fifth 2.65 (4.26) sixth 2.81 (4.52) seventh 3.01 (4.85) eighth 3.19 (5.14) ninth 3.88 (6.25) tenth 4.18 (6.72) eleventh 4.42 (7.12) twelfth 4.75 (7.65) thirteenth 6.18 (9.95) fourteenth 6.61 (10.63) fifteenth 7.04 (11.33) sixteenth 7.53 (12.11) seventeenth 9.07 (14.60) eighteenth 9.83 (15.82) nineteenth 10.33 (16.63) twentieth 11.20 (18.02) twenty-first 14.55 (23.41) twenty-second 16.57 (26.67) twenty-third 21.36 (34.37) twenty-fourth 24.32 (39.14) reverse 1.18 (1.90), 1.35 (2.17), 1.76 (2.83), 2.00 (3.22), 2.60 (4.19), 2.76 (4.44), 2.96 (4.77), 3.14 (5.06), 3.82 (6.15), 4.11 (6.61), 4.35 (7.00), 4.67 (7.52), 6.08 (9.78), 6.49 (10.45), 6.92 (11.14), 7.39 (11.90), 8.92 (14.35), 9.66 (15.55), 10.16 (16.35), 11.00 (17.71), 14.30 (23.02), 16.29 (26.22), 21.00 (33.79), 23.91 (38.48)

DRAWBAR PERFORMANCE									
(Unballasted - Front Drive Engaged)									
MAXIMUM POWER IN SELECTED GEARS									
Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
10th(2ML) Gear									
68.3 (50.9)	8230 (36.6)	3.11 (5.01)	1993	15.0	0.623 (0.379)	11.18 (2.20)	183 (84)	82 (28)	30.0 (101.7)
11th(4LH) Gear									
72.8 (54.3)	8095 (36.0)	3.37 (5.43)	1932	8.7	0.590 (0.359)	11.82 (2.33)	192 (89)	73 (23)	30.0 (101.7)
12th(2MH) Gear									
72.4 (54.0)	6700 (29.8)	4.05 (6.52)	2087	5.2	0.588 (0.358)	11.86 (2.34)	185 (85)	82 (28)	30.0 (101.7)
13th(3ML) Gear									
75.4 (56.2)	5695 (25.3)	4.96 (7.99)	1930	3.2	0.567 (0.345)	12.28 (2.42)	189 (87)	82 (28)	30.0 (101.7)
14th(1HL) Gear									
79.7 (59.4)	5575 (24.8)	5.36 (8.62)	1927	2.7	0.545 (0.332)	12.78 (2.52)	189 (87)	75 (24)	30.0 (101.7)
15th(3MH) Gear									
75.1 (56.0)	4925 (21.9)	5.72 (9.20)	1928	2.0	0.567 (0.345)	12.28 (2.42)	187 (86)	82 (28)	30.0 (101.7)
16th(1HH) Gear									
79.3 (59.1)	4835 (21.5)	6.15 (9.89)	1926	1.5	0.549 (0.334)	12.69 (2.50)	189 (87)	75 (24)	30.0 (101.7)
17th(4ML) Gear									
75.8 (56.5)	3800 (16.9)	7.48 (12.04)	1926	0.9	0.553 (0.336)	12.60 (2.48)	185 (85)	75 (24)	30.0 (101.7)
18th(2HL) Gear									
76.7 (57.2)	3550 (15.8)	8.10 (13.04)	1924	0.8	0.562 (0.342)	12.39 (2.44)	183 (84)	77 (25)	30.0 (101.7)
19th(4MH) Gear									
74.3 (55.4)	3260 (14.5)	8.55 (13.76)	1926	0.7	0.572 (0.348)	12.18 (2.40)	190 (88)	75 (24)	30.0 (101.7)

**Clutch**wet disc hydraulically actuated by foot pedal  
**Brakes** wet disc hydraulically actuated by two foot pedals that can be locked together  
**Steering** hydrostatic  
**Power take-off**540rpm at 1938 engine rpm or 1000 rpm at 1926 engine rpm  
**Unladen tractor mass** 10095 lb (4580 kg)

**REPAIRS AND ADJUSTMENTS:** No repairs or adjustments.

**NOTE:** The performance results on this report were obtained from tests carried out on the Case IH Farmall 115U Diesel.

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's remote hydraulic flow claim of 17.2 GPM (65 lpm). The manufacturer's three point hitch lift claim of 11949 lbs (5420 kg) with optional lift rams was not verified. The manufacturer's remote hydraulic flow claim of 22.2 GPM (84 l/min) with optional pump was not verified. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2803A**, Nebraska Summary 954, July 11, 2014.

Roger M. Hoy  
Director

M.F. Kocher  
S. Pitla  
P.J. Jasa  
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 12th (2MH) gear	76.6	75.6
Bystander in 24th (4HH) gear		83.4

TIRES, BALLAST AND WEIGHT	With Ballast	Without Ballast
<b>Rear Tires</b> -No., size, ply & psi (kPa)	Two 540/65R38;**,12(80)	Two 540/65R38;**,12(80)
<b>Ballast</b> - Liquid (total)	None	None
- Cast Iron (total)	440 lb (200 kg)	None
<b>Front Tires</b> -No., size, ply & psi (kPa)	Two 480/65R24;**,12(80)	Two 480/65R24;**,12(80)
<b>Ballast</b> - Liquid (total)	None	None
- Cast Iron (total)	1100 lb (500 kg)	None
<b>Height of Drawbar</b>	20.3 in (515 mm)	20.5 in (520 mm)
<b>Static Weight with operator</b> - Rear	6325 lb (2870 kg)	6085 lb (2760 kg)
- Front	5480 lb (2485 kg)	4180 lb (1895 kg)
- Total	11805 lb (5355 kg)	10265 lb (4655 kg)

**DRAWBAR PERFORMANCE**  
**(Ballasted - Front Drive Engaged)**  
**MAXIMUM POWER IN SELECTED GEARS**

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Consumption Hp.hr/gal (kW.h/l)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
8th(4LL) Gear									
68.4 (51.0)	9890 (44.0)	2.59 (4.17)	2173	15.0	0.654 (0.398)	10.66 (2.10)	181 (83)	68 (20)	29.8 (101.0)
9th(1MH) Gear									
74.6 (55.6)	8520 (37.9)	3.28 (5.28)	2080	5.6	0.585 (0.356)	11.89 (2.34)	183 (84)	64 (18)	29.8 (101.0)
10th(2ML) Gear									
75.1 (56.0)	8005 (35.6)	3.52 (5.66)	2004	4.2	0.579 (0.352)	12.03 (2.37)	183 (84)	68 (20)	29.8 (101.0)
11th(4LH) Gear									
77.0 (57.4)	8250 (36.7)	3.50 (5.63)	1926	4.4	0.561 (0.341)	12.44 (2.45)	185 (85)	63 (17)	29.8 (101.0)
12th(2MH) Gear									
77.7 (57.9)	7735 (34.4)	3.77 (6.06)	1926	3.3	0.567 (0.345)	12.28 (2.42)	185 (85)	68 (20)	29.8 (101.0)
13th(3ML) Gear									
78.2 (58.3)	5845 (26.0)	5.02 (8.07)	1926	1.9	0.559 (0.340)	12.48 (2.46)	189 (87)	68 (20)	29.8 (101.0)
14th(1HL) Gear									
79.4 (59.2)	5525 (24.6)	5.39 (8.67)	1929	1.7	0.541 (0.329)	12.89 (2.54)	181 (83)	70 (21)	29.8 (101.0)
15th(3MH) Gear									
77.2 (57.6)	5035 (22.4)	5.75 (9.26)	1926	1.4	0.554 (0.337)	12.59 (2.48)	185 (85)	70 (21)	29.8 (101.0)
16th(1HH) Gear									
78.3 (58.4)	4765 (21.2)	6.16 (9.92)	1926	1.3	0.554 (0.337)	12.59 (2.48)	189 (87)	70 (21)	29.8 (101.0)
17th(4ML) Gear									
74.6 (55.6)	3735 (16.6)	7.49 (12.06)	1928	0.9	0.574 (0.349)	12.13 (2.39)	185 (85)	70 (21)	29.8 (101.0)
19th(4MH) Gear									
73.2 (54.6)	3215 (14.3)	8.54 (13.74)	1923	0.8	0.584 (0.355)	11.93 (2.35)	190 (88)	82 (28)	30.0 (101.7)

## HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 6610 lbs (29.4 kN) (50 mm lift cylinders)

i) Sustained pressure of the open relief valve: 2900 psi (200 bar)

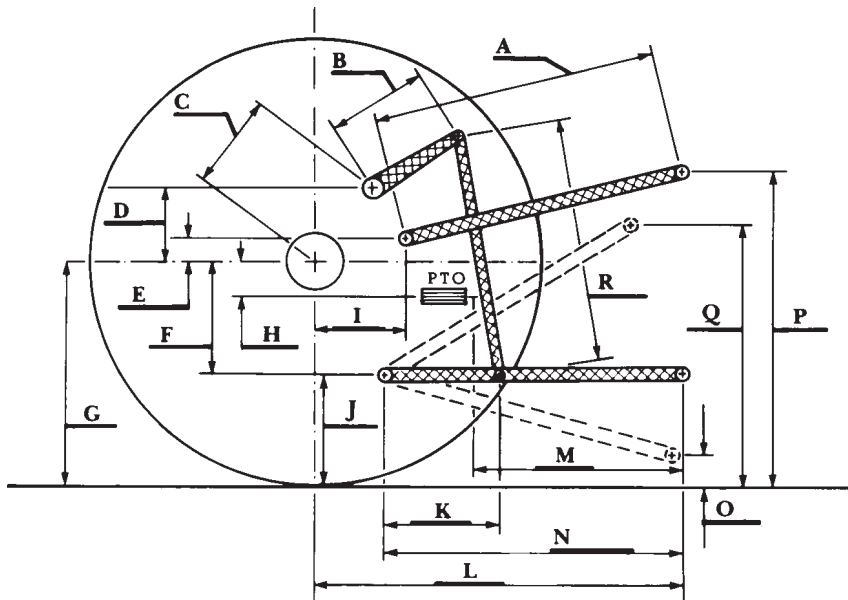
ii) Pump delivery rate at minimum pressure: 16.8 GPM (63.5 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 14.2 GPM (53.6 l/min)

Delivery pressure: 2610 psi (180 bar)

Power: 21.6 HP (16.1 kW)



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	26.7	677
B	10.0	255
C	13.9	352
D	11.7	296
E	10.1	257
F	8.3	210
G	31.5	800
H	1.6	41
I	16.7	424
J	23.2	590
K	17.9	455
L	42.6	1083
M	22.1	562
N	37.5	953
O	7.9	200
P	47.2	1200
Q	36.1	918
R	25.4	645